Safety Data Sheet
PCS Pavement Life Extender

1. Identification

Product identifier used on the label
PAVEMENT LIFE EXTENDER

Recommended use of the chemical and restriction on use
Recommended use*: for industrial and professional users

* The “Recommended use” identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:
Performance Cement Systems, LLC
3500 Lorraine Ave.
Temple, TX 76501

Ph: 254-727-5002

Emergency telephone number

INFOTRAC 800-535-5053

Other means of identification
Chemical family: No applicable information available.

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Skin Corr./Irrit.	2	Skin corrosion/irritation
Eye Dam./Irrit.	1	Serious eye damage/eye irritation
STOT SE	3 (irritating to respiratory system)	Specific target organ toxicity — single exposure
STOT RE	1 (by inhalation)	Specific target organ toxicity — repeated exposure

Label elements

Pictogram:



Signal Word:
Danger

Hazard Statement:

H318	Causes serious eye damage.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H372	Causes damage to organs (Lung) through prolonged or repeated exposure.

Precautionary Statements (Prevention):

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P271	Use only outdoors or in a well-ventilated area.
P260	Do not breathe dust/gas/mist/vapours.
P202	Do not handle until all safety precautions have been readand understood.
P270	Do not eat, drink or smoke when using this product.
P264	Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303 + P352	IF ON SKIN (or hair): Wash with plenty of soap and water.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash before reuse.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents/container to hazardous or special waste collection point.

Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

CAS Number	Content (W/W)	Chemical name
14808-60-7	>= 25.0 - < 75.0 %	crystalline silica
65997-15-1	>= 15.0 - < 50.0 %	Cement, Portland
7778-18-9	>= 10.0 - < 20.0 %	Calcium sulphate
960375-09-1	>= 00.0 - < 60.0 %	Calcium Sulfoaluminate Cement
1305-78-8	>= 0.3 - < 3.0 %	calcium oxide
7632-00-0	>= 0.1 - < 0.2 %	sodium nitrite
1309-37-1	>= 0.0 - < 7.0 %	Iron oxide
1317-65-3	>= 0.0 - < 3.0 %	Limestone
1309-48-4	>= 0.0 - < 3.0 %	magnesium oxide

4. First-Aid Measures

Description of first aid measures

General advice:
First aid personnel should pay attention to their own safety. Remove contaminated clothing.

If inhaled:
After inhalation of dust. Keep patient calm, remove to fresh air. If difficulties occur: Obtain medical attention.

If on skin:
After contact with skin, wash immediately with plenty of water and soap. Under no circumstances should organic solvent be used. If irritation develops, seek medical attention.

If in eyes:
Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed:
Rinse mouth immediately and then drink plenty of water, seek medical attention. Do not induce vomiting unless told to by a poison control center or doctor.

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.
Hazards: No applicable information available.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
foam, water spray, dry powder, carbon dioxide

Unsuitable extinguishing media for safety reasons:
water jet

Additional information:

Product itself is non-combustible. Only the packaging materials can catch fire. The extinguishing agents normally used are sufficient.

Special hazards arising from the substance or mixture

Hazards during fire-fighting: carbon monoxide, carbon dioxide,
harmful vapors
Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire. Product is not combustible or explosive.

Advice for fire-fighters

Protective equipment for fire-fighting:
Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:
Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered. The degree of risk is governed by the burning substance and the fire conditions. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

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6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid contact with skin and eyes. Use personal protective clothing. Handle in accordance with good building materials hygiene and safety practice.

Environmental precautions

Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

For small amounts: Pick up with suitable appliance and dispose of.
For large amounts: Pick up with suitable appliance and dispose of. Pack in tightly closed containers for disposal.
For residues: Rinse with plenty of water.
Avoid raising dust.

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7. Handling and Storage

Precautions for safe handling

Avoid dust formation. The Cement contained in this product reacts alkaline when in contact with water or humidity. This may cause severe irritation of skin or mucous membranes. The humidity of the skin or mucous membranes is enough for this reaction. Prolonged direct contact to the dry product should be avoided therefore. Avoid inhalation of dusts. Avoid skin contact. Pour downwind and allow as little free fall as possible while emptying bags into equipment. Breathing must be protected when large quantities are decanted without local exhaust ventilation.

Protection against fire and explosion:
No special precautions necessary.

Conditions for safe storage, including any incompatibilities

Segregate from metals. Segregate from acids. Segregate from lyes. Segregate from oxidants. Segregate from foods and animal feeds.

Suitable materials for containers: Paper/Fibreboard

Further information on storage conditions: Containers should be stored tightly sealed in a dry place.

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8. Exposure Controls/Personal Protection

Components with occupational exposure limits

calcium oxide	OSHA PEL ACGIH TLV	PEL 5 mg/m3 ; TWA value 5 mg/m3 ; TWA value 2 mg/m3 ;
Iron oxide	OSHA PEL ACGIH TLV	PEL 10 mg/m3 fumes/smoke ; TWA value 10 mg/m3 fumes/smoke ; TWA value 5 mg/m3 Respirable fraction ;
magnesium oxide	OSHA PEL ACGIH TLV	PEL 15 mg/m3 Total particulate ; TWA value 10 mg/m3 Total particulate ; TWA value 10 mg/m3 Inhalable fraction ;
Limestone	OSHA PEL	PEL 5 mg/m3 Respirable fraction ; PEL 15 mg/m3 Total dust ; TWA value 15 mg/m3 Total dust ; TWA value 5 mg/m3 Respirable fraction ;
Calcium sulphate	OSHA PEL ACGIH TLV	PEL 5 mg/m3 Respirable fraction ; PEL 15 mg/m3 Total dust ; TWA value 15 mg/m3 Total dust ; TWA value 5 mg/m3 Respirable fraction ; TWA value 10 mg/m3 Inhalable fraction ;

crystalline silica	OSHA PEL	TWA value 2.4 millions of particles per cubic foot of air Respirable ; The exposure limit is calculated from the equation, 250/(%SiO2+5), using a value of 100% SiO2. Lower percentages of SiO2 will yield higher exposure limits. TWA value 0.1 mg/m3 Respirable ; The exposure limit is calculated from the equation, 10/(%SiO2+2), using a value of 100% SiO2. Lower percentages of SiO2 will yield higher exposure limits. TWA value 0.3 mg/m3 Total dust ; The exposure limit is calculated from the equation, 30/(%SiO2+2), using a value of 100% SiO2. Lower percentages of SiO2 will yield higher exposure limits.
	ACGIH TLV	TWA value 0.025 mg/m3 Respirable fraction ;
Cement, portland, chemicals	OSHA PEL	PEL 15 mg/m3 Total dust ; PEL 5 mg/m3 Respirable fraction ;
	ACGIH TLV	TWA value 1 mg/m3 Respirable fraction ; The value is for particulate matter containing no asbestos and <1% crystalline silica.

Advice on system design:
Provide local exhaust ventilation to maintain recommended P.E.L.

Personal protective equipment

Respiratory protection:
Breathing protection if dusts are formed.

Hand protection:
Chemical resistant protective gloves, Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:
Tightly fitting safety goggles (chemical goggles).

Body protection:
Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures:
Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts. In order to prevent contamination while handling, closed working clothes and working gloves should be used. Handle in accordance with good building materials hygiene and safety practice. When using, do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Contaminated equipment or clothing should be cleaned after each use or disposed of.

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9. Physical and Chemical Properties

Form:	powder
Odor:	mild
Odor threshold:	

Color:	grey	
pH value:	13	
Melting point:	> 2,000 °C	Not determined due to potential health hazard by inhalation.
Boiling point:		
Sublimation point:		(20 °C) (as aqueous solution)
Flash point:		
Flammability:	not determined	No applicable information available.
Lower explosion limit:		No applicable information available. The substance/product is non- combustible.
Upper explosion limit:		As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Autoignition:		As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Vapor pressure:		
Relative density:		
Bulk density:	1.35 g/cm3	No applicable information available.
Vapor density:		No applicable information available.
Partitioning coefficient n-octanol/water (log Pow):		No applicable informationavailable.
		No applicable information available.
		No applicable information available.
Self-ignition temperature:		not self-igniting
Viscosity, dynamic:		No data available.
Viscosity, kinematic:		No applicable information available.
Solubility in water:		(15 °C) insoluble
Miscibility with water:		immiscible
Solubility (quantitative):		No applicable information available.
Solubility(qualitative):		No applicable information available.
Evaporation rate:		No applicable information available.

10. Stability and Reactivity

Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:
Based on its structural properties the product is not classified as oxidizing.

Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
The product is stable if stored and handled as prescribed/indicated.
Strong bases are formed on the addition of water.

Conditions to avoid
Avoid dust formation. Avoid humidity.

Incompatible materials strong bases, strong acids

Hazardous decomposition products

Decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

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11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

AcuteToxicity/Effects

Acute toxicity
Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation. The product has not been tested. The statement has been derived from the properties of the individual components.

Oral
No applicable information available.

Inhalation
No applicable information available.

Dermal
Type of value: ATE
Value: > 5,000 mg/kg

Assessment other acute effects
Assessment of STOT single:
Causes temporary irritation of the respiratory tract.

The product has not been tested. The statement has been derived from the properties of the individual components.

Irritation / corrosion
Assessment of irritating effects: Skin contact causes irritation. May cause severe damage to the eyes. The product has not been tested. The statement has been derived from the properties of the individual components.

Sensitization

Assessment of sensitization: There is no evidence of a skin-sensitizing potential. The product has not been tested. The statement has been derived from the properties of the individual components. Chromate in this product has been reduced. Sensitization due to chromate within stated shelf-live is unlikely.

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: No reliable data was available concerning repeated dose toxicity. Based on available Data, the classification criteria are not met. The product has not been tested. The statement has been derived from the properties of the individual components.

Genetic toxicity
Assessment of mutagenicity: The chemical structure does not suggest a specific alert for such an effect. Based on available Data, the classification criteria are not met.

Carcinogenicity
Assessment of carcinogenicity: The chemical structure does not suggest a specific alert for such an effect. Based on available Data, the classification criteria are not met.

Information on: crystalline silica
Assessment of carcinogenicity: In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed. In long-term animal studies in which the substance was given by inhalation in high doses, a carcinogenic effect was observed. The substance and its compounds in the form of respirable dusts/aerosolsis classified by the German MAK commision as a category 1 carcinogen (substances that cause cancer to humans). A carcinogenic effect cannot safely be ruled out. The inhalation uptake of the alveolar fraction of the fine dust may cause damage to the lungs. The International Agency for Research on Cancer (IARC) has classified this substance as a Group 1 (known) human carcinogen.
NTP listed carcinogen

Reproductive toxicity
Assessment of reproduction toxicity: The chemical structure does not suggest a specific alert for such an effect. Based on available Data, the classification criteria are not met.

Teratogenicity
Assessment of teratogenicity: The chemical structure does not suggest a specific alert for such an effect. Based on available Data, the classification criteria are not met.

Experiences in humans
According to experience, the product is considered to be harmless to health if used in the correct manner.

Other Information
Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses. The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
There is a high probability that the product is not acutely harmful to aquatic organisms.
The product gives rise to pH shifts. Based on available Data, the classification criteria are not met.

Persistence and degradability

Assessment biodegradation and elimination (H2O)
Inorganic product which cannot be eliminated from water by biological purification processes. The product is slightly soluble in water. It can be largely eliminated from the water by abiotic processes, e.g. mechanical separation.

Experience shows this product to be inert and non-degradable.

Elimination information

not applicable

Bioaccumulative potential

Assessment bioaccumulation potential
The product will not be readily bioavailable due to its consistency and insolubility in water.

Mobility in soil

Assessment transport between environmental compartments
The substance will not evaporate into the atmosphere from the water surface.
Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Additional information

Other ecotoxicological advice:
Do not discharge product into the environment without control. The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual components.

13. Disposal considerations

Waste disposal of substance:
Dispose of in accordance with local authority regulations. Do not discharge into drains/surface waters/groundwater.

Container disposal:
Completely emptied packaging can be given for recycling.

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14. Transport Information

Land transport
USDOT

Not classified as a dangerous good under transport regulations

Sea transport
IMDG

Not classified as a dangerous good under transport regulations

Air transport
IATA/ICAO

Not classified as a dangerous good under transport regulations

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15. Regulatory Information

Federal Regulations

Registration status:
Chemical TSCA, US released; restriction on use / listed

This product contains an alkali metal nitrite which is subject to the SNUR at 40 CFR 721.4740 which prohibits the use of this product in metalworking fluids containing amines. 40 CFR 721.4740

EPCRA 311/312 (Hazard categories): Acute; Chronic

CERCLA RQ	CAS Number	Chemical name
5000 LBS	67-64-1; 71-36-3; 79-06-1	Acetone; n-butanol; acrylamide
1000 LBS	1336-21-6; 100-41-4; 100-42-5; 110-82-7	Ammonium hydroxide; ethylbenzene; Styrene; cyclohexane
100 LBS	7632-00-0; 50-00-0; 64-17-5; 75-65-0; 142-96-1; 590-01-2	sodium nitrite; Formaldehyde; Ethanol; 2-methylpropan-2-ol; dibutyl ether; butyl propionate

State regulations
CA Prop. 65:

WARNING: THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

NFPA Hazard codes:
Health : 2 Fire: 0 Reactivity: 0 Special:

HMIS III rating
Health: 2¤ Flammability: 0 Physical hazard:0

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16. Other Information

SDS Prepared by:
Performance Cement Systems, LLC Product Regulations
SDS Prepared on: 2015/04/08

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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